Notice of Allowability	Application No.	Applicant(s)	
	10/014,101	SCHMULLING ET AL.	
	Examiner	Art Unit	
	Stuart F. Baum	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *papers filed 6/15/2006*.

2. ☒ The allowed claim(s) is/are *2-4, 7-17, 25, 28-44, 46-47, 49-50, 52-53, 79-81, 86-87, 90-92, 95-101, 106-121, 138 (renumbered 1-70)*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☒ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date *8/30/2006* .
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Stuart F. Baum

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Ann R. Pokalsky on 8/30/06.

3. IN THE CLAIMS:

Claims 5-6, 18-24, 26-27, 45, 48, 51, 54-78, 82-85, 88-89, 93-94, 102 and 122-137 have been canceled without prejudice.

--Claim 2 (Currently Amended): A method for stimulating root growth or for enhancing the formation of lateral or adventitious roots, said method comprising

[expression of a] introducing into a plant a nucleic acid molecule encoding a plant cytokinin oxidase selected from the group consisting of:

a[.] an isolated nucleic acid molecule comprising the DNA sequence as set forth in SEQ ID NO:26, or the complement thereof,

b[.] an isolated nucleic acid molecule comprising the RNA sequence encoding the amino acid sequence of SEO ID NO:4, or the complement thereof,

c[.] an isolated nucleic acid molecule encoding the protein comprising the amino acid sequence as set forth in SEQ ID NO:4, or the complement thereof, and

d[.] an isolated nucleic acid molecule as defined in any of (a) to (c) characterized in that said nucleic acid molecule is DNA, genomic DNA, cDNA, synthetic DNA or RNA wherein T is replaced by U,

and wherein expression of said nucleic acid molecule stimulates root growth or enhances the formation of lateral or adventitious roots.

Claim 3 (Currently Amended): An isolated nucleic acid molecule encoding a plant protein having cytokinin oxidase activity selected from the group consisting of:

a[.] an isolated nucleic acid molecule comprising the contiguous DNA sequence as set forth in SEQ ID NO: 26 or the complement thereof,

b[.] an isolated nucleic acid molecule comprising the RNA sequence encoding the amino acid sequence of SEO ID NO:4, or the complement thereof,

c[.] an isolated nucleic acid molecule encoding a protein having the amino acid sequence of SEQ ID NO:32,

d[.] [a] an isolated nucleic acid molecule encoding the protein having the amino acid sequence of SEQ ID NO:4, or the complement thereof, provided that said nucleic acid molecule is not the nucleic acid molecule as deposited under Genbank accession number: AC005917, whose sequence is set forth in [(]SEQ ID NO:37[)].--

In claim 4, line 1, "An" has been replaced with --The--.

In claim 7, line 1, the second "a" has been replaced with --the--.

In claims 10-13, line 1, "a" has been replaced with --the--.

--Claim 25 (Currently Amended): A method for the production of a transgenic plant, plant cell or plant tissue comprising [the introduction therein of a nucleic acid molecule] introducing the nucleic acid molecule of claim 3 or 4 in an expressible format or vector into a plant, plant cell or plant tissue.--

--Claim 28 (Currently Amended): A method for expressing [a] the polypeptide encoded by the nucleic acid molecule of claim 3 or 4, said method comprising [the stable introduction] introducing into the genome of a plant cell, [a] the nucleic acid molecule encoding said polypeptide, wherein said nucleic acid molecule is operably linked to one or more control sequences or a vector comprising a nucleic acid molecule encoding said polypeptide, wherein said nucleic acid molecule is operably linked to one or more control sequences.

Claim 29 (Currently Amended): A method for expressing a polypeptide having the amino acid sequence as set forth in SEQ ID NO:4, said method comprising [the stable introduction] introducing into the genome of a plant cell, [a] the nucleic acid molecule of claim 3 or 4 encoding said polypeptide, wherein said nucleic acid molecule is operably linked to one or more control sequences or a vector comprising a nucleic acid molecule encoding said polypeptide, wherein said nucleic acid molecule is operably linked to one or more control sequences.--

--Claim 33 (Currently Amended): A transgenic plant cell comprising [a] the nucleic acid molecule of claim 3 or 4 which is operably linked to regulatory elements allowing transcription and/or expression of said nucleic acid molecule in [plant cells or] a transgenic plant cell.--

--Claim 35 (Currently Amended): A transgenic plant, plant part, or plant tissue comprising the plant cell[s] of claim 33.

Claim 36 (Currently Amended): A transgenic plant, plant part, or plant tissue comprising the plant cell[s] of claim 34.

Claim 37 (Currently Amended): A harvestable part of [a] the transgenic plant of claim 35 wherein the harvestable part comprises [the nucleic acid molecule which was introduced into the transgenic plant] said plant cell.

Claim 38 (Currently Amended): A harvestable part of [a] the transgenic plant of claim 36 wherein the harvestable part comprises [the nucleic acid molecule which was introduced into the transgenic plant] said plant cell.

Claim 39 (Currently Amended): The harvestable part [of a plant] of claim 37 which is selected from the group consisting of seeds, leaves, fruits, stem cultures, rhizomes, roots, tubers and bulbs.

Claim 40 (Currently Amended): The harvestable part [of a plant] of claim 38 which is selected from the group consisting of seeds, leaves, fruits, stem cultures, rhizomes, roots, tubers and bulbs.

Claim 41 (Currently Amended): Progeny derived from the transgenic plant or plant part of claim 35 wherein the progeny comprises [the nucleic acid molecule which was introduced into the transgenic plant]said plant cell.

Claim 42 (Currently Amended): Progeny derived from the transgenic plant or plant part of claim 36 wherein the progeny comprises [the nucleic acid molecule which was introduced into the transgenic plant] said plant cell.

Claim 43 (Currently Amended): A method for stimulating root growth, said method comprising [expression of a] introducing into a plant the nucleic acid molecule of claim 3 or 4 and wherein expression of said nucleic acid molecule stimulates root growth.

Claim 44 (Currently Amended): A method for enhancing the formation of lateral or adventitious roots, said method comprising [expression of a] introducing into a plant the nucleic acid molecule of claim 3 or 4 and wherein expression of said nucleic acid molecule enhances the formation of lateral or adventitious roots.--

In claim 79, line 1, the second "a" has been replaced with --the--.

--Claim 86 (Currently Amended): A method for increasing the size of the root meristem comprising [expression of a] introducing into a plant or plant part the nucleic acid molecule of claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 and wherein expression of said nucleic acid molecule in roots results in an increase in the size of the root meristem [in plants or plant parts, preferably in roots].

Claim 87 (Currently Amended): A method for increasing root size comprising [expression of a] introducing into a plant or plant part the nucleic acid molecule of claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 and wherein expression of said nucleic acid molecule in roots results in an increase in root size [in plants or plant parts, preferably

in roots].--

Claim 90 (Currently Amended): A method for altering leaf senescence comprising [expression of a] introducing into a plant the nucleic acid molecule of claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 and wherein expression of said nucleic acid molecule in leaves alters leaf senescence [in senescing leaves].

Claim 91 (Currently Amended): A method for increasing leaf thickness comprising [expression of a] introducing into a plant or plant part the nucleic acid molecule of claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 and wherein expression of said nucleic acid molecule increases leaf thickness [in plants or plant parts].

Claim 92 (Currently Amended): A method for reducing vessel size comprising [expression of a] introducing into a plant or plant part the nucleic acid molecule of claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 and wherein expression of said nucleic acid molecule reduces vessel size [in plants or plant parts].--

--Claim 95 (Currently Amended): A method for improving standability of seedlings comprising [expression of a] introducing into a plant or plant part the nucleic acid molecule of claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 and wherein expression of said nucleic acid molecule in roots of seedlings improves standability of seedlings [preferably in the roots of seedlings].

Claim 96 (Currently Amended): A method for increasing branching said method[_]comprising [expression of a] introducing into a plant or plant part the nucleic acid

molecule of claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 [in plants or plant part] and wherein expression of said nucleic acid molecule increases branching.

Claim 97 (Currently Amended): A method for improving lodging resistance said method comprising [expression of a] introducing into a plant or plant part the nucleic acid molecule of claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 [in plants or plant parts], and wherein expression of said nucleic acid molecule in stems or axillary buds improves lodging resistance [preferably in stems or axillary buds].--

In claim 98, line 3, "a" has been replaced with --the--.

--Claim 101 (Currently Amended): A method for stimulating root growth and development, said method comprising [expression of a] introducing into a plant cell or tissue culture the nucleic acid molecule of claim 3 or 4[in a transgenic plant cell or tissue culture] and wherein expression of said nucleic acid molecule stimulates root growth and development.--

--Claim 106 (Currently Amended): A method for increasing seed size or weight which comprises [expression of a] introducing into a plant or plant part the nucleic acid molecule of claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 [in a plant or plant part], and wherein expression of said nucleic acid molecule in seeds increases seed size or weight [preferably seeds].

Claim 107 (Currently Amended): A method for increasing embryo size or weight which comprises [expression of a] introducing into a plant or plant part the nucleic acid molecule of

claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 [in a plant or plant part], and wherein expression of said nucleic acid molecule in embryos increases embryo size or weight [preferably embryos].

Claim 108 (Currently Amended): A method for increasing cotyledon size which comprises [expression of a] introducing into a plant or plant part the nucleic acid molecule of claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 [in a plant or plant part], and wherein expression of said nucleic acid molecule in cotyledons increases cotyledon size [preferably cotyledons].--

--Claim 138 (Currently Amended): A method for delaying onset to flowering in a plant, said method comprising [expression of a] introducing into a plant the nucleic acid molecule of claim 3 or 4 or [a] the nucleic acid molecule as defined in claim 2 [in the plant] and wherein expression of said nucleic acid molecule delays the onset of flowering.--

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart F. Baum whose telephone number is 571-272-0792. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

Stuart F. Baum Ph.D.
Primary Examiner
Art Unit 1638
August 30, 2006

STUART F. BAUM, PH.D.
PATENT EXAMINER